

What is Claimed Is:

1. A data communication system comprising:
multiple switching devices for switching data packets, and
an expansion bus for transferring the data packets between the switching devices;
- 5 each switching device having an address processing block for comparing destination address information of a received data packet with current address information, and producing a match signal supplied to another switching device when the destination address information matches the current information.
2. The system of claim 1, wherein the match signal identifies the switching device that generates the match signal.
3. The system of claim 1, wherein the address processing block is configured for producing a forwarding control signal for forwarding the received data packet to a destination associated with the destination address information.
4. The system of claim 3, wherein the address processing block is configured for comparing source address information of the received data packet with the current address information to update the current address information in accordance with the source address information if the source address information does not match the
- 5 current address information.
5. The system of claim 4, wherein the address processing block of said another switching device is responsive to the match signal for updating the current address information in accordance with the destination address information that causes the match signal.
6. The system of claim 5, wherein each switching device comprises a match pin connected to the match pin of said another switching device to transfer the match signal.
7. The system of claim 5, wherein the match signal is transferred via the expansion bus.

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8. The system of claim 5, wherein the address processing block is configured for processing the source and destination address information of data packets received from the expansion bus.

9. The system of claim 8, wherein the address processing block of a switching device is further configured for processing the source and destination address information of data packets received from network stations connected to the switching device.

10. In a data switching system having multiple switching devices, a method of data switching comprising the steps of:

comparing destination address information of a received data packet with first current address information maintained by a first switching device, and

5 supplying a match signal to a second switching device when the destination address information matches the first current address information.

11. The method of claim 10, wherein the second switching device stores second current information updateable in response to the match signal.

12. The method of claim 11, wherein the second current information is updated in accordance with the destination address information that causes the match signal.

13. The method of claim 12, further comprising the step of comparing source address information of the received data packet with the first current information to update the first current information in accordance with the source address information if the source address information does not match the first current information.

14. The method of claim 13, further comprising the step of comparing source address information of received data packets with the second current information to update the second current information in accordance with the source address information if the source address information does not match the second current
5 information.

15. The method of claim 14, wherein the second switching device uses the second current information for making data packet forwarding decisions.

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